

# **Regional HIV/AIDS Epidemiologic Profile of Massachusetts: 2013**

## **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2013, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2012: Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	18,460	59%
People Reported with HIV or AIDS who are Deceased	12,925	41%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>31,385</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

**Table 2. Average annual rate of HIV infection diagnosis from 2009 to 2011 and HIV/AIDS prevalence rate on 12/31/12<sup>1</sup>: Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2009–2011</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Massachusetts Total	10.3	664.7
<b>HIV/AIDS prevalence rate on 12/31/12</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Massachusetts Total	277.5	18,170

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2002–2011, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2002	13,751	368	1,043
2003	14,296	388	933
2004	14,856	343	903
2005	15,403	321	868
2006	15,865	316	778
2007	16,305	286	726
2008	16,739	282	716
2009	17,124	284	669
2010	17,522	255	653
2011	17,971	208	657

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

**Table 4. People diagnosed with HIV infection from 2009–2011<sup>1</sup> and people living with HIV/AIDS on December 31, 2012 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	1,447	73%	13,145	71%
Female	532	27%	5,315	29%
Place of Birth:	N	%	N	%
US	1,216	61%	12,166	66%
Puerto Rico/US Dependency <sup>3</sup>	131	7%	1,929	10%
Non-US	632	32%	4,365	24%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	752	38%	8,029	43%
Black (non-Hispanic)	665	34%	5,516	30%
Hispanic/Latino	488	25%	4,506	24%
Asian/Pacific Islander	62	3%	309	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	808	41%	6,721	36%
Injection Drug Use (IDU)	162	8%	3,753	20%
MSM/IDU	53	3%	627	3%
Heterosexual Sex	249	13%	2,647	14%
Other	14	1%	409	2%
Total Undetermined	693	35%	4,303	23%
• Presumed Heterosexual Sex <sup>4</sup>	215	11%	1,600	9%
• Undetermined <sup>5</sup>	478	24%	2,703	15%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2012	
Under 13	12	1%	26	<1%
13 to 19	52	3%	116	1%
20 to 24	176	9%	294	2%
25 to 29	207	10%	527	3%
30 to 34	250	13%	895	5%
35 to 39	277	14%	1,306	7%
40 to 44	303	15%	2,185	12%
45 to 49	301	15%	3,580	19%
50 to 54	186	9%	3,870	21%
55 to 59	109	6%	2,850	15%
60+	106	5%	2,811	15%
<b>Total<sup>6</sup></b>	<b>1,979</b>	<b>100%</b>	<b>18,460</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

**Table 5. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White, non-Hispanic	6,667	51%	1,361	26%
Black, non-Hispanic	3,125	24%	2,391	45%
Hispanic/Latino	3,049	23%	1,457	27%
Asian/Pacific Islander	240	2%	69	1%
Other/Unknown	63	<1%	37	1%
<b>Total</b>	<b>13,144</b>	<b>100%</b>	<b>5,315</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

**Table 6. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	6,720	51%	N/A	N/A
Injection drug use (IDU)	2,479	19%	1,274	24%
MSM/IDU	627	5%	N/A	N/A
Heterosexual sex	782	6%	1,865	35%
Other	223	2%	186	3%
Total Undetermined	2,313	18%	1,990	37%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	1,600	30%
• Undetermined <sup>3</sup>	2,313	18%	390	7%
<b>Total</b>	<b>13,144</b>	<b>100%</b>	<b>5,315</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Massachusetts<sup>1</sup>, 2002–2011<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2002	706	68%	337	32%	1,043
2003	629	67%	304	33%	933
2004	637	71%	266	29%	903
2005	633	73%	235	27%	868
2006	557	72%	221	28%	778
2007	519	71%	207	29%	726
2008	523	73%	193	27%	716
2009	505	75%	164	25%	669
2010	469	72%	184	28%	653
2011	473	72%	184	28%	657

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts<sup>1</sup>, 2002–2011<sup>2</sup>**

	White (NH)		Black (NH)		Hispanic/Latino		API		Total <sup>3</sup>
	N	%	N	%	N	%	N	%	N
2002	402	39%	368	35%	246	24%	21	2%	1,043
2003	373	40%	324	35%	217	23%	13	1%	933
2004	342	38%	304	34%	239	26%	14	2%	903
2005	341	39%	295	34%	213	25%	16	2%	868
2006	325	42%	242	31%	190	24%	17	2%	778
2007	300	41%	234	32%	174	24%	16	2%	726
2008	282	39%	235	33%	168	23%	26	4%	716
2009	262	39%	225	34%	163	24%	19	3%	669
2010	259	40%	209	32%	163	25%	19	3%	653
2011	231	35%	231	35%	162	25%	24	4%	657

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

NH = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts<sup>1</sup>, 2002–2011<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2002	603	58%	94	9%	346	33%	<b>1,043</b>
2003	573	61%	81	9%	279	30%	<b>933</b>
2004	542	60%	98	11%	263	29%	<b>903</b>
2005	521	60%	77	9%	270	31%	<b>868</b>
2006	479	62%	57	7%	242	31%	<b>778</b>
2007	448	62%	57	8%	221	30%	<b>726</b>
2008	435	61%	67	9%	214	30%	<b>716</b>
2009	410	61%	48	7%	211	32%	<b>669</b>
2010	402	62%	44	7%	207	32%	<b>653</b>
2011	404	61%	39	6%	214	33%	<b>657</b>

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts<sup>1</sup>, 2002–2011<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total <sup>5</sup>
	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	316	30%	189	18%	32	3%	180	17%	123	12%	196	19%	<b>1,043</b>
2003	308	33%	144	15%	33	4%	131	14%	126	14%	177	19%	<b>933</b>
2004	288	32%	145	16%	26	3%	132	15%	110	12%	191	21%	<b>903</b>
2005	332	38%	120	14%	23	3%	109	13%	96	11%	183	21%	<b>868</b>
2006	322	41%	96	12%	17	2%	98	13%	99	13%	141	18%	<b>778</b>
2007	275	38%	98	13%	21	3%	81	11%	81	11%	165	23%	<b>726</b>
2008	279	39%	71	10%	30	4%	92	13%	78	11%	160	22%	<b>716</b>
2009	295	44%	45	7%	17	3%	87	13%	65	10%	155	23%	<b>669</b>
2010	266	41%	62	9%	18	3%	79	12%	79	12%	143	22%	<b>653</b>
2011	247	38%	55	8%	18	3%	83	13%	71	11%	180	27%	<b>657</b>

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/13



**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Massachusetts<sup>1</sup>, 2002–2011<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2002	376	1,043	36%
2003	313	933	34%
2004	327	903	36%
2005	314	868	36%
2006	282	778	36%
2007	261	726	36%
2008	212	716	30%
2009	202	669	30%
2010	206	653	32%
2011	218	657	33%

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Massachusetts,<sup>1</sup> 2009–2011<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	465	1,447	32%
Female	161	532	30%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	233	752	31%
Black (non-Hispanic)	224	665	34%
Hispanic/Latino	145	488	30%
Asian/Pacific Islander	19	62	31%
Other/Undetermined <sup>3</sup>	5	12	42%
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	363	1,216	30%
Puerto Rico/US Dependencies <sup>4</sup>	36	131	27%
Non-US	227	632	36%
<b>Total</b>	<b>626</b>	<b>1,979</b>	<b>32%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>4</sup> Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13